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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,522	09/14/2001	Zhan Cui	36-1484	4379

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EXAMINER

KANG, INSUN

ART UNIT PAPER NUMBER

2193

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/936,522	CUI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Insun Kang	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>19 December 2005</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This action is in response to the amendment filed 12/19/2005.
2. As per applicant's request, claims 1 and 10 have been amended. Claims 1-7 and 9-17 are pending in the application.

#### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-7 are non-statutory because they are directed to a "system" without recitation of a computer or a computer-readable medium embodying the process management and data analysis system. The claims merely recite a "distributed computer system comprising a process management system, data analysis system that are disembodied arrangements so as to be called a "computer program" or compilation of facts, information, or data *per se*, without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer ("acts") or computer readable medium so as to enable the computer to perform the claimed functionalities. Thus the claims represent non-functional descriptive material that is not capable of producing a useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7 and 9-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Marazakis et al. (Management of Work Sessions in Dynamic Open environments, 8/1998) hereinafter referred to as "Marazakis."

Per claim 1:

Marazakis discloses:

- a process management system arranged in operation to manage resources to carry out processes to provide one or more services and a data analysis system for use in storing and analyzing data generated during use of said process management system (i.e. "Management applications, acting as clients of the monitor service, may invoke the GetRecs...GetAllRecs methods in order to correlate log records...collecting

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performance-related data to identify bottlenecks...the producers of log records can provide sufficient state information," page 5 second paragraph of the left column)  
data storage for storing:

a) service definitions each identifying at least one process associated with provision of a service by the process management system (i.e."The entry for a resource in the repository includes all the essential information that enable monitoring and control of the component...Aurora monitor service. It consists of methods to register and unregister a task...to provide a log record...to retrieve either a specific record identified by its persistent key of type RECID," page 5 first paragraph of the left column)

b) a log of processes allocated, by the process management system in use, to respective resources managed by said process management system to provide a service ("its monitoring mechanisms that allows each service provider to log information about its own state and its interactions with others, supports monitoring of pair-wise interactions between parties. A session may span multiple distributed resources, owned by autonomous providers, Keeping track of the activities of tasks is achieved by requiring each container to register with the logging system...the logging systems of session managers constitute the basis of a distributed monitoring infrastructure," page 4, first paragraph of the right column)

c) a log of states of said resources, arising in use of the process management system to provide the service, with respect to carrying out the allocated processes ("its monitoring mechanisms that allows each service provider to log information about its own state and its interactions with others, supports monitoring of pair-wise interactions between

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parties... The Aurora monitor enables a client... to collect all log records about events of interest to the execution of a workflow... tracking the progress and current state of service flows," page 4, first paragraph of the right column)

-one or more inputs for receiving d) a service request identifying a data analysis service to be provided by the data analysis system to the process management system

("Management applications, acting as clients of the monitor service, may invoke the GetRecs... GetAllRecs methods in order to correlate log records... collecting performance-related data to identify bottlenecks... the producers of log records can provide sufficient state information," page 5 second paragraph of the left column)

e) resource allocation and resource state data, provided by said process management system in use, for storage in said log of processes and said log of states (page 2, right column, second paragraph)

-a data analyzer for analyzing the logged process and state information ("Management applications, acting as clients of the monitor service, may invoke the

GetRecs... GetAllRecs methods in order to correlate log records... collecting performance-related data to identify bottlenecks... the producers of log records can provide sufficient state information to enable a management application to cancel or modify the effects of an action," page 5 second paragraph of the left column)

-the data analysis system being arranged to generate, and output to the process management system, a performance measure with respect to said resources, based on analysis of the logged process and state information ("Management applications, acting as clients of the monitor service, may invoke the GetRecs... GetAllRecs methods in

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order to correlate log records...collecting performance-related data to identify bottlenecks...the producers of log records can provide sufficient state information to enable a management application to cancel or modify the effects of an action," page 5 second paragraph of the left column)  
as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:  
the log of states is maintainable during use of an identified process management system in providing more than one instance of a service such that performance of at least one resource may be analyzed with respect to each of said instances ("This infrastructure enables tracking the progress and current state of service flows, as well as maintaining the interaction history for each participant," page 4 first paragraph of the right column) as claimed.

Per claim 3:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:  
the log of states is maintainable during use of an identified process management system in providing instances of at least two different services, such that performance of at least one resource may be analyzed with respect to each of said instances("level of performance of all entities involved in workflow processing be tracked and maintained according to predetermined levels," page 1 first paragraph of the right column) as claimed.

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Per claim 4:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:

the data analyzer measures the number of occurrences of a particular state for respective resources and the performance measure is determined according to whether the number of occurrences reaches a predetermined threshold ("level of performance of all entities involved in workflow processing be tracked and maintained according to predetermined levels," page 1 first paragraph of the right column) as claimed.

Per claim 5:

The rejection of claim 4 is incorporated, and further, Marazakis teaches:

rein the threshold comprises a percentage number of occurrences of said particular state in relation to the number of occurrences of that state plus other states (page 1 first paragraph of the right column) as claimed.

Per claim 6:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:

the states available to a respective resource in carrying out an allocated process comprise at least failure and success ("collecting performance-related data to identity bottlenecks, as well as for enabling flexible recover and compensation in the event of failures that cause exceptions. Recovery and compensation are possible since the producers of log records can provide sufficient state information," page 5, second paragraph of the left column) as claimed.

Per claim 7:



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The rejection of claim 1 is incorporated, and further, Marazakis teaches:

the data received from the process management system in use includes a start time for provision of the relevant service and at least one of said log of processes and said log of states also logs the time taken by at least one identified resource to carry out a process ("Log records can simply define the start and end of steps in a session...the name of the resourced used, the start and ending time," page 4 second paragraph of the right column) as claimed.

Per claim 9:

Marazakis teaches:

-data management system for use in storing and analyzing data generated during use of a process management system in managing processes (i.e. page 5 second paragraph of the left column)

i) a request input for receiving a data analysis service request from the process management system(i.e. page 5, second paragraph of the left column )

-a data input for receiving data inputs of at least two different types from the process management system, a service definition store for storing at least one service definition comprising one or more service requirements, including identification of data inputs required for provision of at least one data analysis service in respect of the service definition(page 1 first paragraph of the right column)

iv) request processing means for accessing a service definition from the service definition store in accordance with a service identifier contained in a received data analysis service request (i.e. page 5 right column)

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-a data input store for storing data inputs from the process management system required for provision of the data management service associated with said service identifier (i.e. page 5 right column)

-wherein a first of said two different types of data input comprises representations of service agreements in place in respect of components of the process management system and a second of said two different types of data input comprises indicators that said service agreements have been satisfied in running of a process managed by said process management system (i.e. page 5 right column).

Per claims 10-16, they are the method versions of claims 1-7, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-7 above.

Per claim 17, it is the method version of claim 9, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 9 above.

7. Claims 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Brien et al. ("Agents of change in business process management," BT Technol J. 1996) hereafter O'Brien.

Per claim 9:

O'Brien teaches:

-data management system for use in storing and analyzing data generated during use of a process management system in managing processes (i.e. page 136 sec. 3 The APMS reference model)

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- i) a request input for receiving a data analysis service request from the process management system((i.e. page 136 sec. 3 The APMS reference model)
  - a data input for receiving data inputs of at least two different types from the process management system, a service definition store for storing at least one service definition comprising one or more service requirements, including identification of data inputs required for provision of at least one data analysis service in respect of the service definition(i.e. page 136 sec. 3 The APMS reference model)
- iv) request processing means for accessing a service definition from the service definition store in accordance with a service identifier contained in a received data analysis service request (i.e. page 136 sec. 3 The APMS reference model)
  - a data input store for storing data inputs from the process management system required for provision of the data management service associated with said service identifier (i.e. page 136 sec. 3 The APMS reference model)
  - wherein a first of said two different types of data input comprises representations of service agreements in place in respect of components of the process management system and a second of said two different types of data input comprises indicators that said service agreements have been satisfied in running of a process managed by said process management system (i.e. page 134 sec. 2 APMS- a service oriented approach)

Per claim 17, it is the method version of claim 9, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 9 above.

***Response to Arguments***

8. Applicant's arguments filed 12/19/2005 have been fully considered but they are not persuasive.

Per claims 1 and 10:

The Applicant states that Marazakis does not disclose or suggest a "logging system which records resource allocation to tasks."

In response, the claims broadly recite the data analysis system having data storage, one or more inputs, and a data analyzer. Marazakis's monitoring mechanisms "allows each service provides to log information about its own state and its interactions with others (page 4 right col.)." The Aurora monitor "enables a client to collect all log records about events of interest to the execution of a workflow" and tracking the progress and current state of service flows. The log records contain information such as the activities of tasks and resources used to carry out the tasks (page 4 right col.). If applicant means anything more, this must be brought out in the claims to further clarify the invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 7:30-4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

I. Kang  
Examiner



KAKALI CHAKI  
SUPERVISORY PATENT EXAMINER  
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